

ABSTRACT OF THE DISCLOSURE

A filter for filtering a fluid, such as lubricating oil for an engine, has a first element for trapping small particles and a second filter element for trapping sludge, the second filter element being stacked on the first filter element. A flow-deflecting element is disposed between the first filter element and second filter element to provide a spinning motion to oil flowing from the second filter element as that oil joins oil which is passed through the first filter element. The spinning motion of the oil from the bypass filter element encourages mixing of the oil from the second filter element with the oil filtered by the first element. A centrifugal separator is disposed in an annular space between the filter elements and filter housing for imparting a rotary motion to the fluid prior to the fluid passing through the filter elements. This removes large particles from the fluid by centrifugal force so that large particles do not add to the contaminant load in the filter elements. During operation of the engine, this arrangement tends to provide cleaner lubricating oil, and therefore reduces engine wear while increasing the time interval between scheduled maintenance procedures.